

tendencies is  $3.641593r_0$ , or  $.0169414 \left( \rho_3 + \frac{\rho_0}{2} \right)$ , which differs by less than  $\frac{1}{84}$  of one per cent from Stockwell's estimate of the projection of the centre of the dense belt. For the influence of  $\rho_3 + \frac{\rho_0}{2}$  upon the orbital locus of Uranus, see Note 463.

471. *Sun's Equatorial Acceleration.*

The luminous projection of Jupiter and of the centre of the dense belt, as well as the other evidences of apsidal influence upon planetary harmonies, show that molecular *vis viva* has slightly modified the simple undulatory *vis viva* of the luminiferous æther. The amount of the solar equatorial acceleration is not precisely known, because no Sun-spots have been observed very near the solar equator; it cannot, however, differ much from Earth's mean secular eccentricity. We may, therefore, regard this as another evidence of the harmonic importance of "subsidence" to the belt of greatest density.

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*Stated Meeting, June 20, 1884.*

Present, 5 members.

President, Mr. FRALEY, in the Chair.

A letter accepting membership was read from James H. Hutchinson, M.D., dated May 16, 1884, No. 133 South Twenty-second street, Philadelphia.

The decease of Prof. Dr. Heinrich Robert Göppert, at Breslau, May 18, 1884, aged 83, was announced.

A letter was received from J. M. Da Costa, M.D., accepting the appointment to prepare an obituary notice of the late Dr. Gross.

Prof. Baird requested, by letter, a copy of Proceedings No. 110 for the Library of the Imperial Museum at Strasburg, which was ordered to be sent.

Prof. E. D. Cope requested, by letter, the insertion of a paragraph in the Proceedings enlarging the notice of the minutes of January 18, 1884.



An application was read for the Magellanic Premium, signed "*Arcturus*," on the explosion of tanks containing petroleum, and the method of preventing the same.

Prof. Cope sent a paper on the Extinct Mammalia of Valley of Mexico.

Mr. Richard Vaux read a paper on the history of the Pennsylvania prison system.

Nominations Nos. 1023 to 1028, were read.

Letters of acknowledgment were received from the Holland Society at Harlem (114); the Fondation Tyler (114); the Royal Zoölogical Society, Amsterdam (113, XVI, i); the Observatory at Prague (113, XVI, i); the Royal Society of Sciences, Göttingen (XIII, i, ii); the Radcliffe Observatory (114); the Royal Observatory, Edinburgh (113, XVI, i); Wm. Blades, 23 Abchurch Lane, London (114); the Statistical Society, London (114).

Letters of Envoy were read from the United States Consul at Budapest, April 29, 1884; the Royal Zoölogical Society, Amsterdam, June 4; the Musée Guimet, April 16, and the National Academy at Cordova, South America, requesting exchanges.

Donations for the Library were received from the Geological Survey of India; Academy at St. Petersburg; Mr. Joseph de Lenhossek, of Budapest; Anthropological Society, Geological Institute, Vienna; Royal Bavarian Academy; Royal Saxon Society; Royal Society, Göttingen; Royal Prussian Academy; Society at St. Gall; National Antiquarian Society, Copenhagen; Tuscan Society of Natural Sciences, at Pisa; Musée Guimet and Society Agriculture, Lyons; Commercial Geographical Society and Meteorological Commission, Bordeaux; Institute of France, Ethnological Society, Anthropological Society, Zoölogical Society, Geographical Society, M. Leon de Rosney, Society of Americanists, Society for Japanese Studies, Bureau of Longitudes, M. M. Locroy, Paris; Royal Academy of History at Madrid; Astronomical Society, Geographical Society, Nature, London; Cambridge University; Glasgow Observatory; Pat-



rick Geddes, of Edinburgh; Nova Scotia Institute of Sciences; Boston Society Natural History; American Journal Science; American Chemical Society; New York Historical Society, New York Academy of Sciences, New York Meteorological Observatory, Philadelphia Academy Natural Sciences, Franklin Institute, Journal of Pharmacy, Engineers' Club, Zoölogical Society, Dr. Geo. L. Harrison, J. A. Kirkpatrick, Heber S. Thompson, Edwin Atlee Barber, Henry Phillips, Jr., E. D. Cope, A. E. Foote, Eli K. Price, American Journal of Philology, Baltimore Johns Hopkins University, United States National Museum, United States Army Bureau of Engineers, Census Bureau, Jed. Hotchkiss, of Staunton, Virginia, American Antiquarian, Chicago.

And the meeting was adjourned.

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*Stated Meeting, July 18, 1884.*

Present, 3 members.

President, Mr. FRALEY, in the Chair.

A letter was received from the President of the Committee for erecting a statue to Jean Baptiste Dumas, and requesting a subscription for the same.

The death of Dr. Karl Richard Lepsius was announced as having taken place July 11, 1884, ætat. 83.

A letter was received from Gen. W. F. Reynolds announcing a change of address to Detroit, Michigan.

Letters of acknowledgment were received from the Royal Academy of Sciences, Amsterdam (113, XVI, i); Royal Institute, Lombardy; Prof. J. S. Steenstrup (113); K. K. Central Institute (114); University Library, Cambridge (114); New Hampshire Historical Society, Concord (115); American Antiquarian Society, Worcester (115); Essex Institute (115); Boston Athenæum (115); American Statistical Asso-